Natural Heritage & Endangered Species Program
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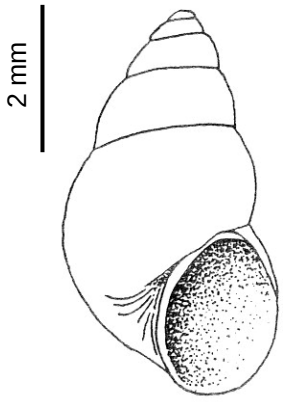
Coastal Marsh Snail

Littoridinops tenuipes

State Status: **Special Concern**
Federal Status: None

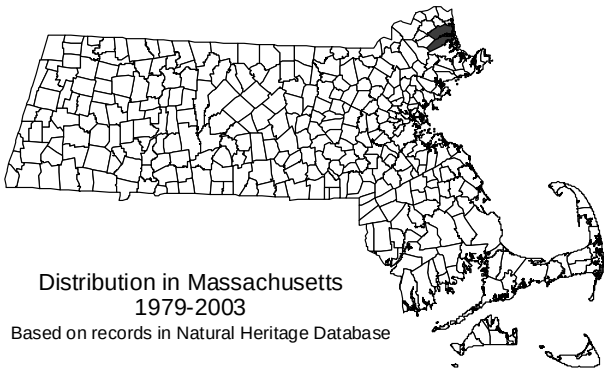


Smith, D.G. Keys to the freshwater macroinvertebrates of southern New England. Published by author. Sunderland, MA. 2000.

Description: The Coastal Marsh Snail, also known as Henscomb Hydrobe, is a small snail with an average shell length of 4 mm. Its spiral shell is generally thin and transparent, but can be thicker and more opaque in larger specimens. The shell appears glossy and light brown or olivaceous in color with nearly 5 relatively flat-sided whorls (Pilsbry 1952). As with all species of the subclass Prosobranchia, the Coastal Marsh Snail has a hardened circular structure, known as an operculum, which acts as a trap door at the shell opening. The operculum of this species is characteristically thin and transparent and has a single spiral that fans out to the perimeter of the operculum. Identification of this species is difficult because it requires knowledge of the anatomical features of snails.

Habitat: Look for the Coastal Marsh Snail in coastal waters that are fresh or contain a trace of salt. In Massachusetts, this snail has been found in a ditch containing cattails (*Typha* spp.) and rushes that drains an oak-alder-pine swamp. Here, the Coastal Marsh Snail was found in association with the New England Siltsnail (*Cincinnatia winkeyi*) and the Saltmarsh Hydrobe (*Spurwinkia salsa*). The Coastal Marsh Snail was found in another location close to a tidal marsh that was dominated by cattails and influenced by tidal waters. Associated species at this site were the New England Siltsnail, the freshwater Ubiquitous Peaclam (*Pisidium casertanum*), and pulmonate snails from the genus *Lymnaea*. Elsewhere, this species is known from streams and ditches with little or no water current and is usually found on hard sand beds (Thompson 1968).

Life History/Behavior: Little is known about the life history of the Coastal Marsh Snail. Adults are found in summer and probably live 2 to 3 years (D.G Smith, personal communication 2003). Snails in this family (Hydrobiidae) are browsers, consuming fine particulate matter or rasping diatoms and other microorganisms from firm surfaces. This species has separate sexes and fertilization takes place internally (Taylor 1966). Eggs are deposited by the female and are enclosed in a protective capsule.



Distribution in Massachusetts
1979-2003
Based on records in Natural Heritage Database

Threats: Unregulated development adjacent to the drainage systems containing this species is a potential threat, as is a change in hydrology or the leaching of toxic substances into the snail's habitat.

Range: In Massachusetts, the Coastal Marsh Snail is at its northern range limit. Here it is found in the coastal fresh and brackish waters of northeastern Massachusetts. Elsewhere, its range extends to the south along the Atlantic seaboard.

Population Status in Massachusetts: In Massachusetts, the Coastal Marsh Snail is known from two localities confined to the north shore where development pressures are high. The Coastal Marsh Snail is listed under the Massachusetts Endangered Species Act as a Species of Special Concern. All listed species are protected from killing, collecting, possessing, or sale and from activities that would destroy habitat and thus directly or indirectly cause mortality or disrupt critical behaviors. In addition, listed animals are specifically protected from activities that disrupt nesting, breeding, feeding, or migration. More information on the distribution and habitat requirements of this species would help in its preservation.

Similar Species: All members of the family Hydrobiidae can easily be confused. To differentiate among them one must examine the male genitalia. Smith (2000) sufficiently illustrates the differences among the species of southern New England.

References:

Pilsbry, H. S. 1952. *Littoridina tenuipes* (Couper). Nautilus 66:50-54.
Smith, D. G. 2000. Keys to the freshwater macroinvertebrates of southern New England. Published by author. Sunderland, MA. 243 pp.
Taylor, D. W. 1966. A remarkable snail fauna from Coahuila, Mexico. Veliger 9: 152-228.
Thompson, F. G. 1968. The aquatic snails of the family Hydrobiidae of peninsular Florida. University Florida Press. Gainesville, FL. 268 pp.

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June 2004